FIG. 1

**NEW STATE** OLD STATE PATH METRIC s=A+x STATE Sn STATE Sn **BRANCH METRIC x** PATH METRIC A PATH METRIC A PATH SELECT SIGNAL PS[S2n] WHEN a > b PS[S2n]=1 WHEN a≦b PS[S2n]=0 PATH METRIC b=B+y STATE Sn+2 BRANCH METRIC y PATH METRIC B

FIG. 2

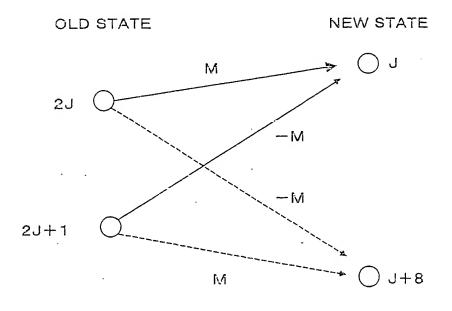


FIG. 3

J	B(J, 0)	B(J, 1)
0	1	1
1	<u>s</u> — 1	· -1
2	1	1
· 3.	-1	1
4	1	1
5	<del>-</del> 1	1
6	1	1
7	-1	1

FIG. 4

A=ULD\_M(2J)+T//OLD\_(2J+1)+ B=OLD\_M(2J)-T//OLD\_(2J+1)+  $NEW_M(J+8) = MAX(B_HIGH, B_LC)$  TRN < < 1, TRN(0, 0) = TCNEW\_M(J)=MAX(A\_HIGH, A\_LOW TRN<<1, TRN(0, 0)=TC \*AR5+, B A, \*AR4+ CMPS B, \*AR3+ \* AR5, A DSADT CMPS DADST VITRFE MACRO

ENDM

VITRFE MACRO

DSADT \*AR5, A

DADST \*AR5+, B

CMPS A, \*AR4+

A=OLD\_M(2J)-T//OLD\_(2J+1)+
B=OLD\_M(2J)+T//OLD\_(2J+1)NEW\_M(J)=MAX(A\_HIGH, A\_LOW
TRN<<1, TRN(0, 0)=TC
NEW\_M(J+8)=MAX(B\_HIGH, B\_LC
TRN<<1, TRN(0, 0)=TC

ENDM

\* AR3+

CMPS B,

FIG. 5

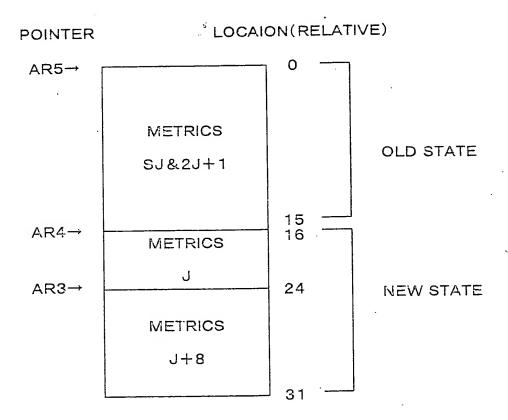


FIG. 6

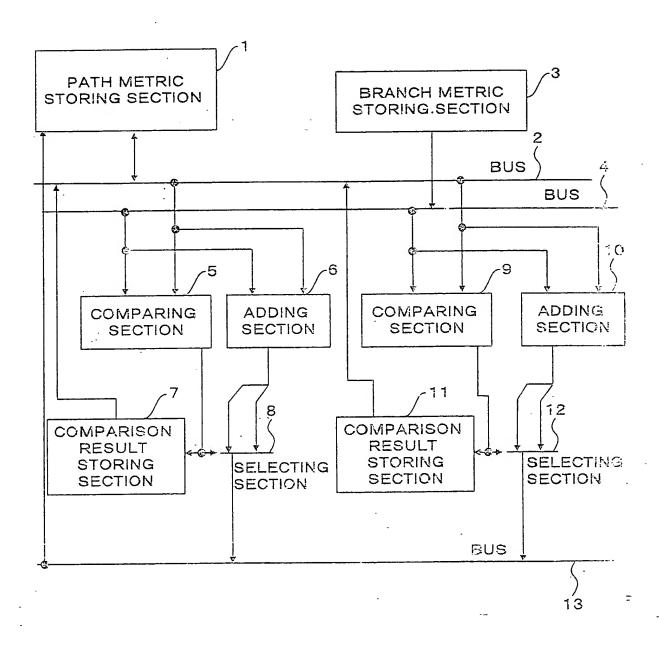
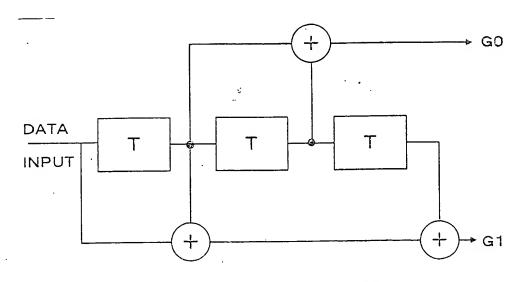


FIG. 7



T: DELAY

## G0G1

BM0: BRANCH METRIC WITH 0 0
BM1: BRANCH METRIC WITH 0 1
BM2: BRANCH METRIC WITH 1 0
BM3: BRANCH METRIC WITH 1 1

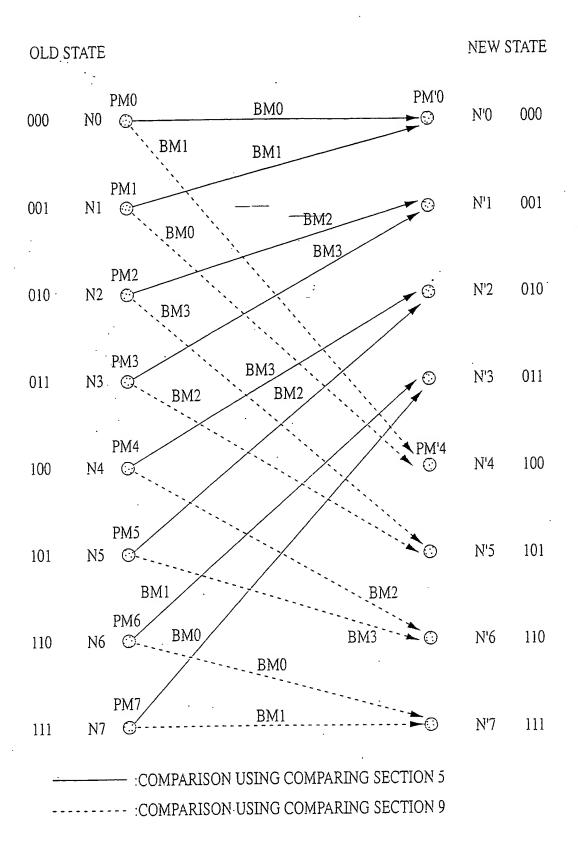


FIG. 8

FIG. 9

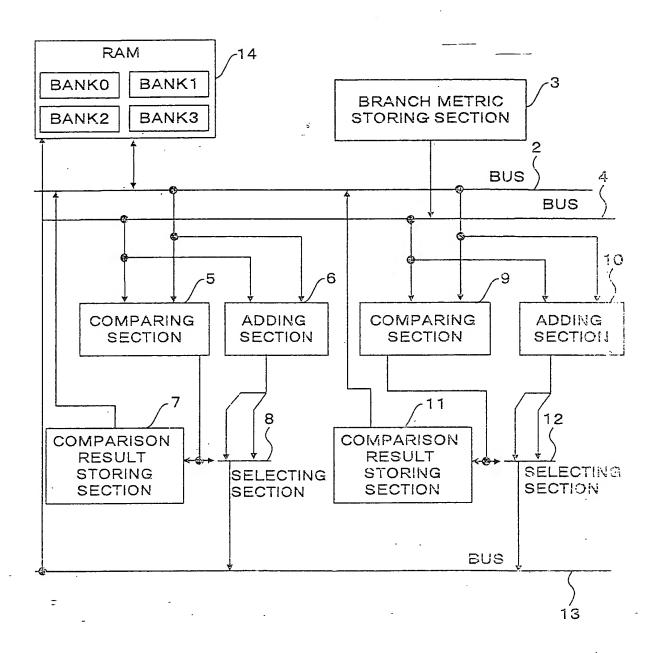


FIG. 10

STAGE

OPERATION EXECUTION

MEMORY ACCESS

INSTR-UCTION COMMENT

INSTRUCTION 2

INSTRUCTION 3

FIG. 11

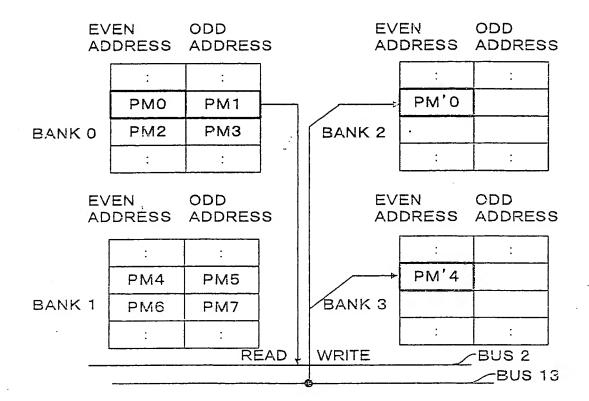


FIG. 12

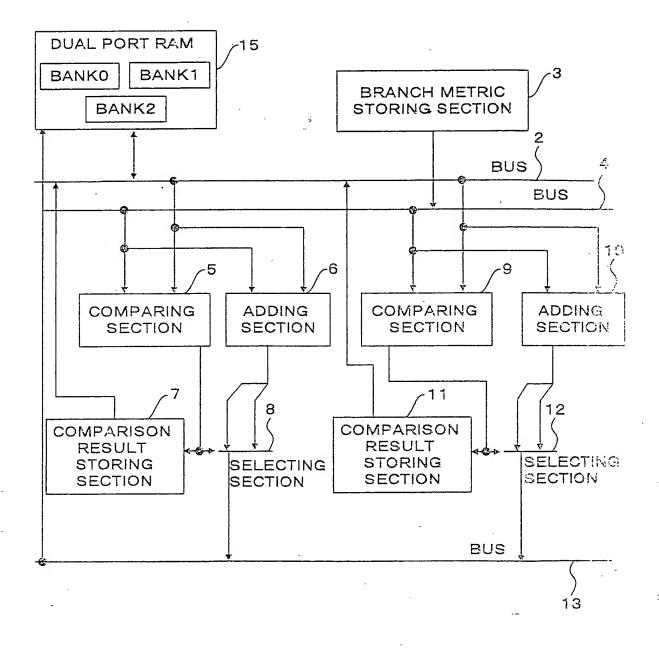


FIG. 13

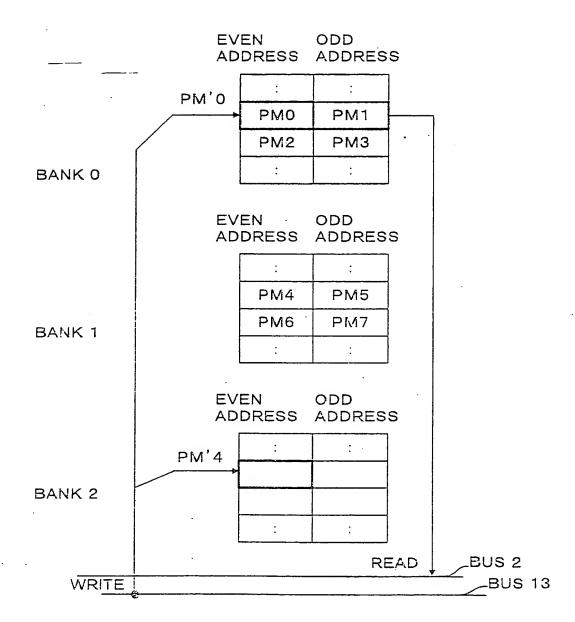
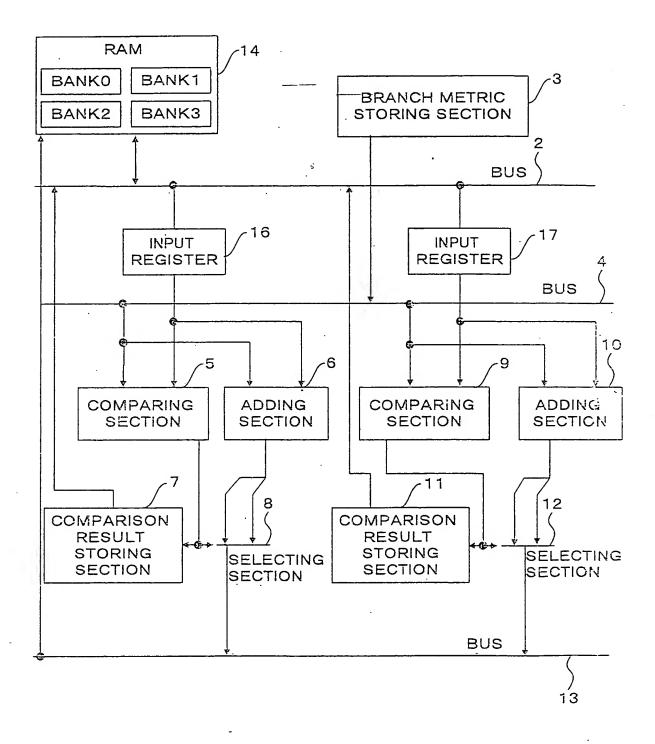


FIG. 14



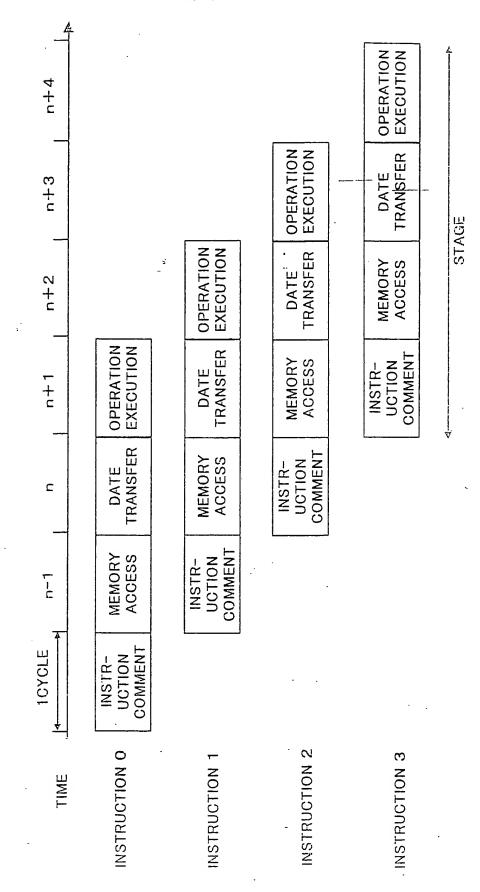
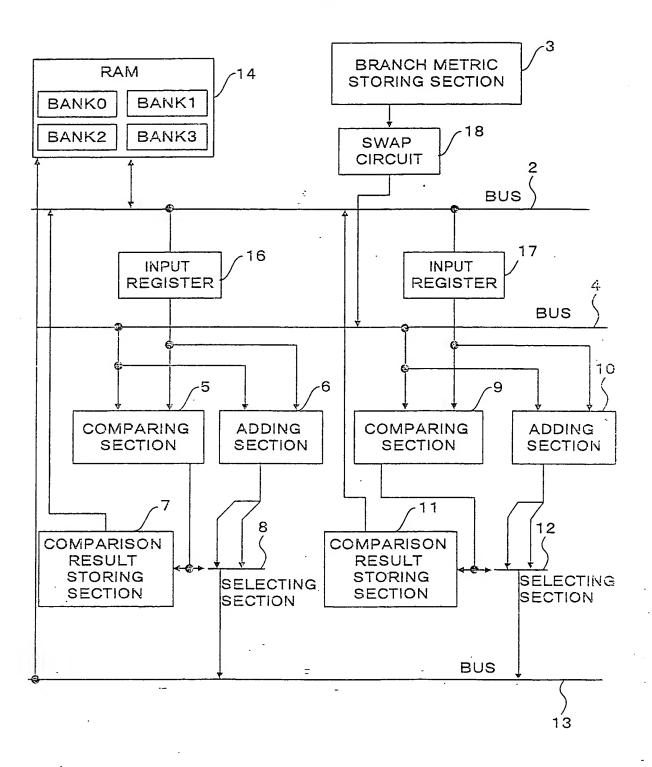


FIG. 15

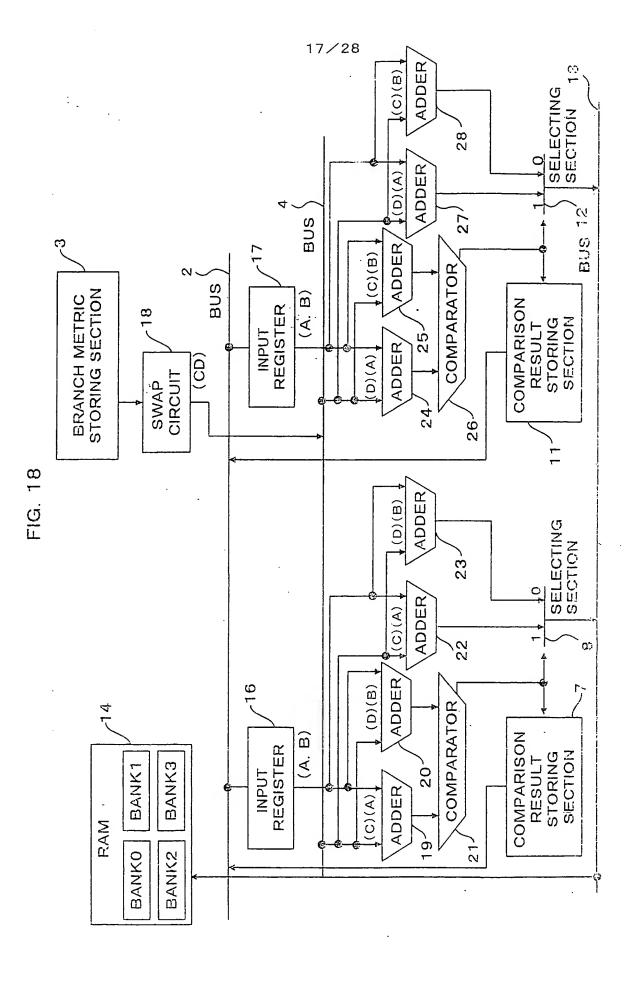
FIG. 16

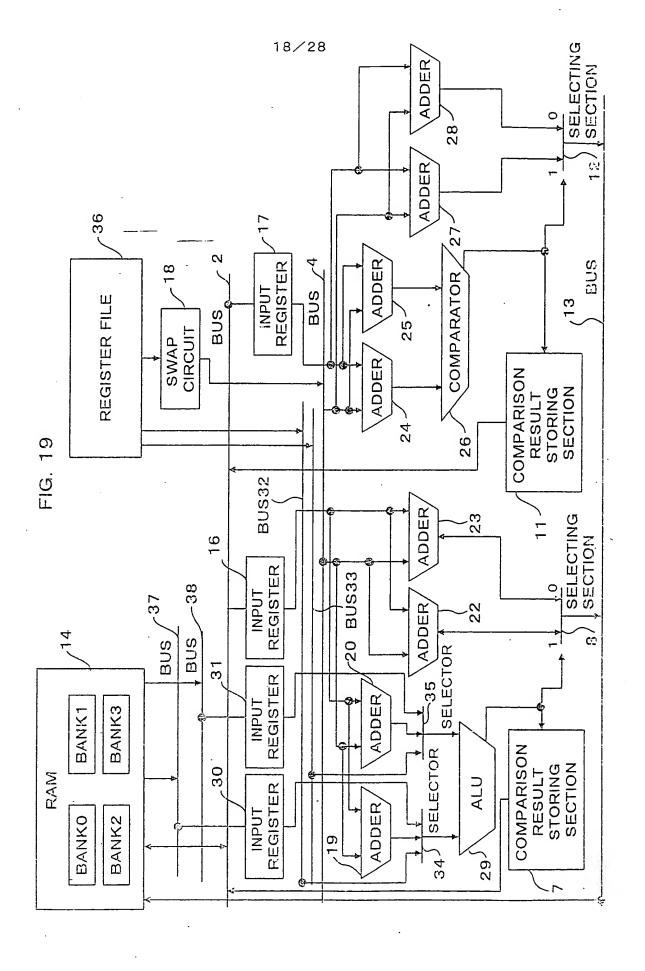


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	COMPARING MEANS 5	COMPARING MEANS 9
NODE NO, NODE N1→NODE N'O	PM1+BM1-PM0-BM0	
NODE NO, NODE N1→NODE N'4		PM1+BM0-PM0-BM1
NODE N6, NODE N7→NODE N'3	PM7+BM0-PM6-BM1	10
NODE N6, NODE N7→NODE N'7	1	PM7+BM1-PM6-BM0
-		

	COMPARING MEANS 6	COMPARING MEANS 10
NODE NO, NODE N1→NODE N'0	PM1+BM1, PM0+BM0	-
NODE NO, NODE N1→NODE N'4		PM1+BM0, PM0+BM1
NODE №6, NODE N7→NODE N'3	PM7+BM0, PM6+BM1	l
NODE N6, NODE N7→NODE N'7		PM7+BM1, PM6+BM0





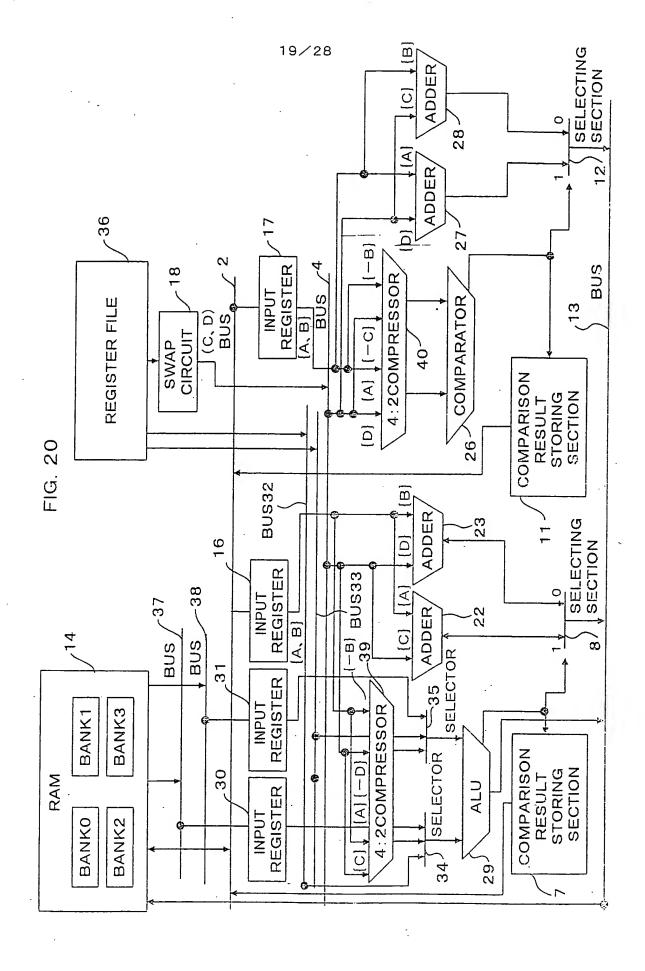


FIG. 21

		NPUT			Οl	JTPUT	
in0	in 1	in2	in3	0in	out0	out1	Oout
00000011111111000000011111111	000011110000111100001111	001100110011001100110011	0101010101010101010101010101	0000000000000111111111111111	011010011001011010011001101001	00010111011111111111111111111	0000000000000100001000101

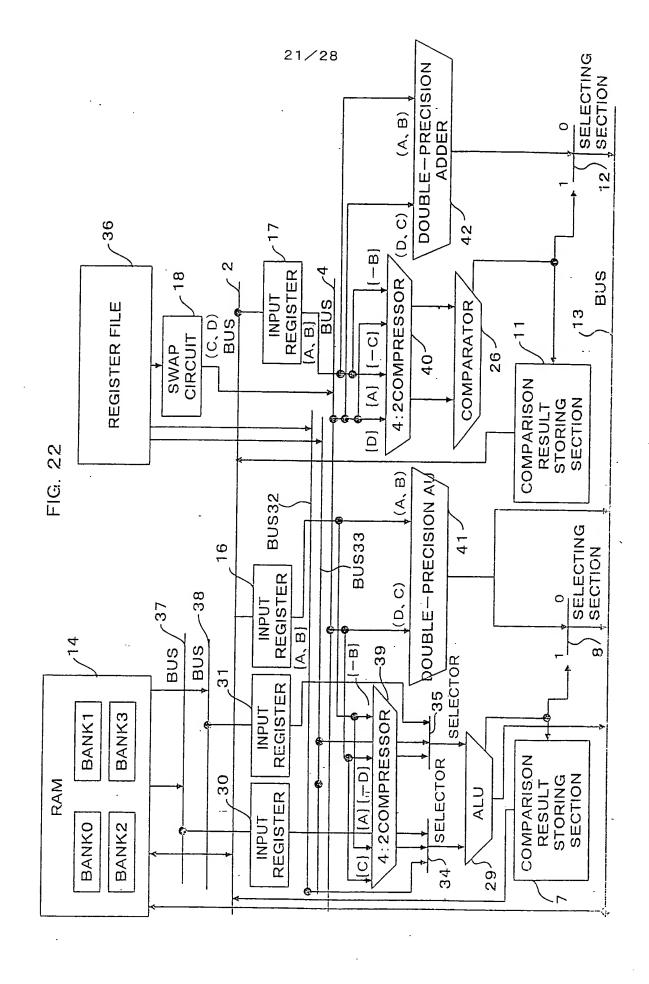
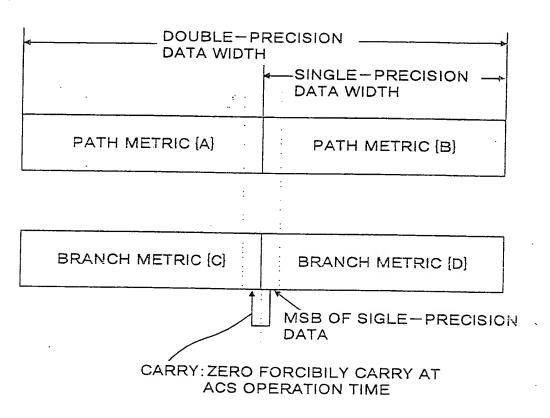


FIG. 23



## RESULT OF ADDITION

PATH METRIC (A+C)	PATH METRIC (B+D)

